

STANDARD SPECIFICATIONS, SPECIAL PROVISIONS AND STANDARD DRAWINGS

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REVISION TO STANDARD SPECIFICATIONS

PROPOSAL TO STANDARDS COMMITTEE

PROBLEM(S) ENCOUNTERED: The industry is beginning to implement electronic ticketing. In order to stay current INDOT will need to update specification language to allow for both paper tickets and electronic tickets (e-tickets). Numerous systems have appeared creating a varied experience for inspection staff. To date, INDOT has currently been operating under a Memorandum. A specification would provide clarity to industry about the direction of e-ticketing at INDOT.

In addition, there are portions of the spec sections being revised that include out of date requirements. These include material records requirements that have not been updated in the years since the system management changed from CRA to Site Manager. There are also references to automatic printer systems and state weighman that are no longer part of the current construction management processes.

PROPOSED SOLUTION: Revise the spec language to allow for both ticketing options: e-tickets or paper tickets. The required ticket information will remain the same regardless of the option selected. Add language for minimum functionality for e-ticketing systems in order to provide a sufficient and consistent experience for inspection staff. Both options will likely be needed for the foreseeable future until all material suppliers in the state use e-ticket systems and all areas of the state have consistent cellular coverage.

In addition, delete language that is out of date.

APPLICABLE STANDARD SPECIFICATIONS: 106.01(b), 109.01(b)

APPLICABLE STANDARD DRAWINGS: N/A

APPLICABLE DESIGN MANUAL SECTION: N/A

APPLICABLE SECTION OF GIFE: Primarily 13.19, but may need to consider a new e-ticket section

APPLICABLE RECURRING SPECIAL PROVISIONS: N/A

PAY ITEMS AFFECTED: N/A

APPLICABLE SUB-COMMITTEE ENDORSEMENT: APAI subcommittee on e-Ticketing; vetted for comment with ICI and ACPA.

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[continued]

IF APPROVED AS RECURRING SPECIAL PROVISION OR PLAN DETAILS, PROPOSED BASIS FOR USE:

IMPACT ANALYSIS (attach report):

Submitted By: Joe Novak

Title: State Construction Engineer

Organization: INDOT

Phone Number: 317-501-7805

Date:

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IMPACT ANALYSIS REPORT CHECKLIST

*Explain the business case as to why this item should be presented to the Standards Committee for approval.  
Answer the following questions with Yes, No or N/A.*

Does this item appear in any other specification sections? No

Will approval of this item affect the Approved Materials List? No

Will this proposal improve:

Construction costs? Yes

Construction time? Yes

Customer satisfaction? Yes

Congestion/travel time? No

Ride quality? No

Will this proposal reduce operational costs or maintenance effort? No

Will this item improve safety:

For motorists? No

For construction workers? Yes

Will this proposal improve quality for:

Construction procedures/processes? Yes

Asset preservation? No

Design process? No

Will this change provide the contractor more flexibility? Yes

Will this proposal provide clarification for the Contractor and field personnel? Yes

Can this item improve/reduce the number of potential change orders? No

Is this proposal needed for compliance with:

Federal or State regulations? No

AASHTO or other design code? No

Is this item editorial? No

Provide any further information as to why this proposal should be placed on the  
Standards Committee meeting Agenda: N/A

REVISION TO STANDARD SPECIFICATIONS

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SECTION 106 – CONTROL OF MATERIAL

106.01(b) Material Records

SECTION 109 – MEASUREMENT AND PAYMENT

109.01(b) Scales and Measurement by Weight (Mass)

(Note: Proposed changes shown highlighted gray)

The Standard Specifications are revised as follows:

SECTION 106, BEGIN LINE 50, DELETE AND INSERT AS FOLLOWS:

**(b) Material Records**

The Engineer will prepare the material record from the documentation provided by the Contractor. ~~The Engineer will submit the completed forms to the Contractor by the end of the fifth business day of each month for the preceding month. The Contractor shall distribute this information to the appropriate subcontractors as required. The Contractor shall review, sign, and return the material record to the Engineer by the 28th day of each month, along with documentation to support the Contractor's recommended adjustments to the record.~~

**1. Documentation of Material Delivery**

The Contractor shall provide a copy of each delivery ticket and certifications, if required, to the Engineer not later than the next business day *except as specified hereinafter*. If providing this information on the next business day is not possible, the Contractor and the Engineer will agree upon other arrangements for the receipt of the necessary documentation prior to the event.

**2. Delivery Ticket Information**

The material delivery ticket shall include an itemized quantity of all materials delivered, the date of delivery, and the contract number. The material delivery ticket shall document the source of supply and source code, if known, and shall contain information necessary to obtain a basis for use as required by Department specifications. *The material delivery ticket may be either a paper ticket or an electronic ticket (e-ticket).*

*When e-tickets are to be supplied, the Contractor shall either be approved to use the Department's e-ticketing system or request approval of the Engineer to use an alternate e-ticketing system. The approval of an alternate e-ticketing system shall warrant the following minimum requirements:*

- a. Provide a user guide document and answer questions as needed.*
- b. Provide Department access to the e-ticket data in real-time via software compatible with both Apple macOS and Microsoft Windows desktop operating systems and both Apple iOS and Google Android mobile operating systems.*

REVISION TO STANDARD SPECIFICATIONS

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SECTION 106 – CONTROL OF MATERIAL

106.01(b) Material Records

SECTION 109 – MEASUREMENT AND PAYMENT

109.01(b) Scales and Measurement by Weight (Mass)

*c. Provide the Department the ability to acknowledge the acceptance of e-tickets within both the desktop and the mobile systems.*

*d. System shall compile e-tickets into a single PDF format document by date and material description with the number of tickets per page limited to maintain legibility; and compile a PDF format e-ticket summary by date and material description with the total quantity delivered. E-tickets and summaries shall include acceptance status input by the Department.*

*e. Provide Department software access for direct download of all e-tickets and summaries or in the absence of such access, Contractor shall be responsible for emailing the required documents.*

*f. The Department may request paper tickets at any time due to system failures, cellular connectivity failures, or lack of reliability due to inaccuracy or inconsistency of the data provided.*

All required certifications shall be in accordance with 916 or as directed.

**3. Payment Procedures**

If the Contractor does not provide the necessary documentation for the materials, such materials will not be paid for. The Engineer will notify the Contractor of those materials held from the estimate with the justification for withholding payment. If corrective action has not been taken within six weeks of the materials delivery to the project site, the entire estimate payment may be withheld.

SECTION 109, BEGIN LINE 73, DELETE AND INSERT AS FOLLOWS:

**(b) Scales and Measurement by Weight (Mass)**

All materials for which measurements are obtained by weight (mass) shall be weighed on approved scales which, except as hereinafter provided for out-of-state scales, shall be tested and sealed by the Indiana State Board of Health, Division of Weight and Measures. This inspection shall have been made within a period of not more than one year prior to the date of use for weighing material. A scale which has been tested and approved within this one year period and which has been repaired or dismantled or moved to another location, shall again be tested and approved before it is eligible for weighing. All interested

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SECTION 106 – CONTROL OF MATERIAL

106.01(b) Material Records

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109.01(b) Scales and Measurement by Weight (Mass)

parties, such as the Department, the Contractor, or the owner of the scales, may request an inspection of the scales in question. The latest inspection shall take precedence over all previous inspections. ~~Automatic printer systems may be used with HMA plant scale systems under certain conditions in accordance with 409.02(a). If automatic printer systems are used, the same inspection, testing, and sealing requirement specified herein for scales shall apply to HMA plant batch scales and printer systems.~~

A motor-truck scale shall have a suitable undercarriage of such construction that shall safely carry and weigh an amount equal to 80% of the rated capacity of the scale on either end of the scale platform. When so loaded, the stresses in the lever system shall not exceed the stresses allowable under AREA specifications. The load carried per 1 in. of knife-edged bearing shall not exceed 5,000 lb.

The scale platform shall be of such length and width as to conveniently accommodate all trucks containing materials which need to be weighed. The entire truck load shall rest on the scale platform and shall be weighed as one draft.

If material is weighed on truck scales, weigh tickets showing the net weight of each load of material delivered shall be supplied for use in computing quantities. The tickets ~~shall be prepared at the weighing site under the supervision of the State weighman, and shall contain the ticket serial number, date, contract number, source of supply, material designation such as size or type, DMF or JMF number for HMA, truck number, time weighed, gross weight direct reading if scale is of the direct reading type, tare, net weight, and moisture content if applicable. Two spaces shall be provided on each ticket for the signatures of a representatives of the Engineer. One space shall be designated for the state weighman and the second space for the technician or inspector.~~

A duplicate ticket may be furnished by the Contractor for its records. The original, and duplicate if furnished, tickets will be signed ~~at the weighing site and~~ at the point of incorporation into the work. No additional payment will be made for furnishing, maintaining, and operating scales.

The weight of materials weighed outside the State and intended for use on the contract may be determined on scales tested and approved by the proper governmental unit having authority where the scales are located. In such case, the Department shall be furnished with a certified copy of such inspection and approval which, to be acceptable, shall have been made within one year to the time of such weighing. Out-of-state truck scales used shall be in accordance with all pertinent provisions as they apply to truck scales accepted within the State of Indiana. They shall be subject to approval and inspection by the Department and to the requirements applicable to such scales located within the State.

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SECTION 106 – CONTROL OF MATERIAL

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109.01(b) Scales and Measurement by Weight (Mass)

If materials are shipped by rail, the car weight may be accepted provided payment is made for only the actual weight of the materials. Car weights will not be acceptable for material to be passed through mixing plants. Trucks used to haul material being paid for by weight shall be weighed empty daily at such times as directed. Each truck shall bear a plainly legible identification mark.

ADDENDUM 1

COMMENTS AND ACTION

106.01(b) Material Records

109.01(b) Scales and Measurement by Weight (Mass)

DISCUSSION:

<p>Motion:</p> <p>Second:</p> <p>Ayes:</p> <p>Nays:</p> <p>FHWA Approval:</p>	<p>Action:</p> <p>___ Passed as Submitted</p> <p>___ Passed as Revised</p> <p>___ Withdrawn</p>
<p>2022 Standard Specifications Sections referenced and/or affected:</p> <p>106 begin pg 61; 109 begin pg 99.</p> <p>Recurring Special Provision references in:</p> <p>NONE</p> <p>Standard Drawing affected:</p> <p>NONE</p> <p>Design Manual Sections affected:</p> <p>NONE</p> <p>GIFE Sections cross-references:</p> <p>13.19</p>	<p>___ 2024 Standard Specifications</p> <p>___ Revise Pay Items List</p> <p>___ Create RSP (No. __)</p> <p>Effective:</p> <p>RSP Sunset Date:</p> <p>___ Revise RSP (No. __)</p> <p>Effective:</p> <p>RSP Sunset Date:</p> <p>___ Standard Drawing</p> <p>Effective:</p> <p>___ Create RPD (No. __)</p> <p>Effective:</p> <p>___ GIFE Update</p> <p>___ Frequency Manual Update</p> <p>___ SiteManager Update</p>